REMARKS

The Official Action dated July 28, has been carefully reviewed and the foregoing amendment has been made in response thereto. Prior to entry of the foregoing amendment claims 1-34, 36, 37, 39-69 and 71-74 were active in the present application. Claims 1-20, 22-34, 36-37, 39-40, 42-58, 60, 63-69 and 72-74 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,278,977, issued to Agrawal et al. Claims 21, 41, 59, 61-62 and 71 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Agrawal et al. in view of U.S. patent No. 6,718,338, issued to Vishnubhotla.

Independent claim 1 has been amended as shown above to more clearly recite the invention. No other changes have been made to the claims.

The rejections of independent claims 1, 36, 39, 69, 72 and 73 as being anticipated by Agrawal et al., and claim 71 as being unpatentable over Agrawal et al. in view of Vishnubhotla are respectfully traversed. Regarding claim 1, Agrawal et al. at column 6, lines 30-35, was cited as teaching "selecting discrete coupleable items executable in a computer-implemented workflow environment, wherein the discrete coupleable items encapsulate work associated with activities identified by decomposing the decision-making process." Column 6, lines 1-9 was cited as teaching "creating an executable workflow by coupling a plurality of the discrete coupleable items, wherein at least one of the discrete coupleable items defines a query to be run against the collection of data, at least one of the discrete coupleable items defines an analysis to be performed based on results of the query, and at least one of the discrete coupleable items defines distribution of information based on the analysis to one or more destinations."

Column 6, lines 21-35 of Agrawal et al. set forth immediately below:

> Modeling of a business process as a syntactical unit in a way that is directly supported by a software system is extremely desirable.

> Moreover, the software system can also work as an interpreter basically getting as input such a model. The model, called a process model or workflow model, can then be instantiated and the individual sequence of work steps depending on the context of the instantiation of the model can be determined. Such a model of a business process can be perceived as a template for a class of similar processes performed within an enterprise; it is a schema describing all possible execution variants of a particular kind of business process. An instance of such a model and its interpretation represents an individual process, i.e. a concrete, context dependent execution of a variant prescribed by the model.

It is not seen that the above cited excerpt from Agrawal et al. teaches the step of "selecting discrete coupleable items executable in a computer-implemented workflow environment, wherein the discrete coupleable items encapsulate work associated with activities identified by decomposing the decision-making process."

Column 6, lines 1-9 of Agrawal et al. is provided immediately below:

> It has to be stressed especially that using a WFMS for producing the audit log for applying OLAP or data mining technology is not vital for the current invention. Other techniques like an appropriate wrappering or instrumentalization of existing applications might me used for generating the required log records. But using a WFMS for this purpose is convenient in many situations. Thus, without limiting the scope of the current invention, the exploitation of a WFMS for what follows is assumed.

It is not seen that the above cited excerpt from Agrawal et al. teaches the step of "creating an executable workflow by coupling a plurality of the discrete coupleable items, wherein at least one of the discrete coupleable items defines a query to be run against the collection of data, at least one of the discrete coupleable items defines an analysis to be performed based on results of the query,

and at least one of the discrete coupleable items defines distribution of information based on the analysis to one or more destinations."

Additional, claim 1, as amended, recites discrete coupleable items comprising: (1) a set of executable query directives, each executable query directive defining a query to be run against the collection of data; (2) a set of executable analysis directives, each executable analysis directive defining an analysis to be performed based on results of a query; and (3) a set of executable distribution directives; each executable distribution directive defining distribution of information based on an analysis to one or more destinations. The executable query directives, executable analysis directives, and executable distribution directives, are not taught or suggested by the cited prior art.

Regarding claim 36, Agrawal et al. at column 7, lines 45-50 was cited as teaching "creating an executable sequence of associated discrete items executable in a computer environment, wherein at least one of the items defines a query to be run against the collection of data, at least one of the items defines a distribution directive operable to distribute information based on the query to at least one destination, and at least two of the items are coupleable." Column 13, lines 3-5 was cited as teaching "scheduling the executable sequence for automatic execution in the computer environment, wherein at least one of the coupleable items is denoted as coupled to another of the coupleable items."

Column 7, lines 45-50 of Agrawal et al. is provided immediately below:

> Has a (sub-)process assigned to perform it. The process is invoked when the activity is started. A process activity represents a way to reuse a set of activities that are common to different processes. Output from the process, can be used in the exit condition for the process activity and for the transition conditions to other activities.

It is not seen that the above cited excerpt from Agrawal et al. teaches the step of "creating an executable sequence of associated discrete items executable in a computer environment, wherein at least one of the items defines a query to be run against the collection of data, at least one of the items defines a distribution directive operable to distribute information based on the query to at least one destination, and at least two of the items are coupleable."

Column 13, lines 3-5 of Agrawal et al. is provided immediately below:

> After an appropriate sampling period of time the audit trail will contain the execution sequences of many different instances of the business process.

It is not seen that the above cited text from Agrawal et al. teaches the step of "scheduling the executable sequence for automatic execution in the computer environment, wherein at least one of the coupleable items is denoted as coupled to another of the coupleable items."

Regarding claim 39, Agrawal et al. was cited as teaching "selecting a plurality of processing directives, wherein at least one of the processing directives is a query" (column 7, lines 37-44), "and at least two of the processing directives are coupleable" (column 7, lines 45-50), and "associating the processing directives into an executable sequence operable to generate and distribute information from the collection of data when executed, wherein at least a first of the processing directives is denoted as coupled to at least a second, other of the processing directives" (column 7, lines 45-50).

Column 7, lines 36-50, of Agrawal et al. is provided below:

> Process activity:
>
> Has a program assigned to perform it. The program is invoked when the activity is started. In a fully automated workflow, the program performs the activity without human intervention. Otherwise, the user must start the activity by selecting it from a

runtime work list. Output from the program can be used in the exit condition for the program activity and for the transition conditions to other activities.

Process activity:

Has a (sub-)process assigned to perform it. The process is invoked when the activity is started. A process activity represents a way to reuse a set of activities that are common to different processes. Output from the process, can be used in the exit condition for the process activity and for the transition conditions to other activities.

It is not seen that the cited excerpt from Agrawal et al. teaches the steps recited in claim 39. Specifically, the selection of a plurality of processing directives is not disclosed.

Regarding claim 69, Agrawal et al. at column 11, lines 38-63, was cited as teaching the recited invention. Column 11, lines 38-63, are provided immediately below:

OLAP (OnLine Analytical Processing) tools allow the fast access to large amounts of data, many different representations and aggregations of the same results sets, and the access of data related to already derived results. While this is in theory true for standard relational DBMSs new technologies like multi-dimensional hypercubes or time-series allow this in a very efficient way.

In general, a WFMS writes for each significant workflow event a log record into an audit trail. Especially, the event that a particular activity has been started or terminated and at what time is logged in this audit trail. In addition, these events are associated with the instance of the process model they are supporting, Consequently, the sequence of execution of the activities of a process model are available in the audit log of a WFMS on a per instance base. Data mining technology can thus be used to determine patterns of execution sequences of activities of business processes from audit trails.

> From a global perspective the present invention suggests a method of evolutionary discovering and adapting a process model of a business process. The methodology is based on an approach in which the WFMS automatically is tracking the execution behavior of the various activities as executed by the users. Based on this tracked audit trail records the WFMS automatically derives an improved version of the process model.

It is not seen that the cited excerpt from Agrawal et al. teaches the steps recited in claim 69. Specifcally, the cited text does not disclose selecting a set of a plurality of chainable discrete database operation items.

Regarding claim 71, Agrawal et al. was cited at column 12, lines 35-40 as teaching "a sequence definer for accepting a set of loosely-coupled processing directives, wherein at least one of the processing directives is a query." Column 9, lines 7-20, were cited as teaching "a sequence execution coordinator for coordinating execution of the sequence and coupling the processing directives during execution of the sequence."

Agrawal et al. column 12, lines 35-43, are provided below:

> The query is used to describe all persons having the duty or responsibility or skill to perform the associated activity, and the program specifies the executable supporting the performance of the activity on a computer. When the WFMS detects that a given activity must be performed it executes the associated query and all people qualifying under that query will get a corresponding notification (called a workitem).

Agrawal et al., column 9, lines, 7-20, are provided below:

> Staff assignments are the means to distribute activities to the right people in the sequence prescribed by the control flow aspect of a business process model. Each activity in a process is assigned to one or more staff members defined in the FlowMark database. Whether an activity is started manually by the user or automatically by the FlowMark workflow manager, and whether it requires user

> interaction to complete or completes automatically, a staff member must be assigned to it. FlowMark staff definition entails more than identifying people at your enterprise to the FlowMark database. For each person defined, you can specify a level, an organization, and multiple roles. These attributes can be used at run time to dynamically assign activities to people with suitable attributes.

It is not seen that the above cited excerpts from Agrawal et al. discloses a computer-implemented system including "a sequence definer for accepting a set of loosely-coupled processing directives, wherein at least one of the processing directives is a query," or "a sequence execution coordinator for coordinating execution of the sequence and coupling the processing directives during execution of the sequence."

Regarding claims 72 and 73, Agrawal et al. at column 11, lines 38-43, was cited as teaching "a sequence builder operable to accept a selection of a plurality of processing directives for generating information from the collection of data, wherein at least one of the processing directives is a query and at least one of the processing directives is a template." Agrawal et al., column 11, lines 38-43, is set for the below:

> OLAP (OnLine Analytical Processing) tools allow the fast access to large amounts of data, many different representations and aggregations of the same results sets, and the access of data related to already derived results. While this is in theory true for standard relational DBMSs new technologies like multi-dimensional hypercubes or time-series allow this in a very efficient way.

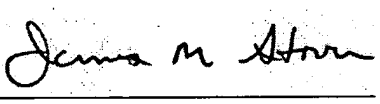
It is not seen that the above cited excerpt from Agrawal et al. discloses "a sequence builder operable to accept a selection of a plurality of processing directives for generating information from the collection of data, wherein at least

one of the processing directives is a query and at least one of the processing directives is a template."

It is believed that each of the independent claims active in the present application is patentable over the cited references, taken singularly or in combination. Accordingly, the claims dependent from independent claims 1, 36, 39, 69, 72 and 73 are also believed patentable over the cited references.

In view of the foregoing amendments and remarks, it is believed that the present application, including claims 1-34, 36, 37, 39-69 and 71-74, is in condition for allowance. Early and favorable action is respectfully requested.

Respectfully submitted,



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